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POT/GB2004/050036



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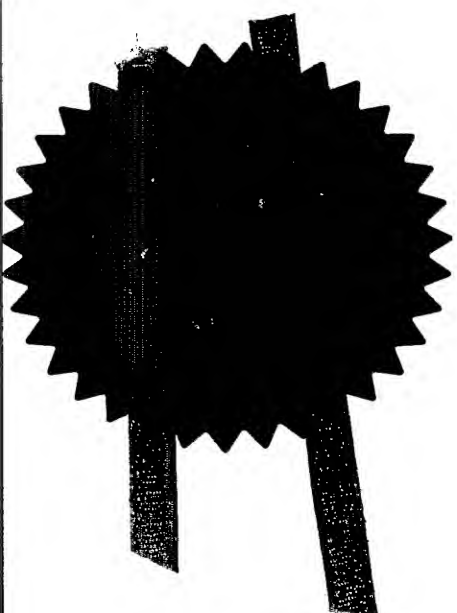
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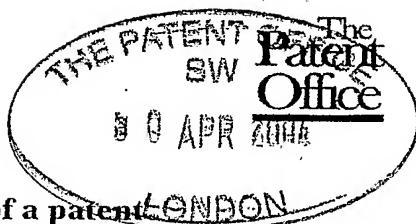
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2. Patent application number (The Patent Office will fill in this part)	0409717.6		30 APR 2004
3. Full name, address and postcode of the or of each applicant (underline all surnames)	3Point Blue Limited 5 Century Place Lamberts Road Tunbridge Wells Kent TN2 3EH England and Wales		
Patents ADP number (if you know it)	8860348001		
If the applicant is a corporate body, give the country/state of its incorporation	England and Wales		
4. Title of the invention	BLISTER PACK		
5. Name of your agent (if you have one)	BROOKES BATCHELLOR LLP		
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Patents ADP number (if you know it)	08142291001 8839276001		
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	GB	0328614.3	10/12/03
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Description **5**

Claim(s) --

Abstract --

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Statement of inventorship and right to grant of a patent (Patents Form 7/77) --

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11.

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David Bailey

Date

29 April 2004

12. Name and daytime telephone number of person to contact in the United Kingdom

DAVID BAILEY

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BLISTER PACK

The present invention relates to a blister pack. In particular, it relates to an improvement in blister packs which makes it more difficult for a child to release a medicament from the blister pack without making it unduly difficult for the elderly or infirm to remove the medicament.

Conventional blister cards or packs typically include a plastics sheet material moulded to provide a plurality of recesses into each of which recesses is placed a medicament, typically in tablet or capsule form. The medicaments are held in place by means of a foil retaining sheet. When the patient wishes to use the medicament, they push the tablet or capsule through the foil retaining sheet. For ease of release, the foil retaining sheet is usually rather thin and easily ruptured. This raises issues of child safety, as it becomes very easy for a child to tamper with the blister pack, so releasing the medication. One approach to improving the child-resistance of a blister pack is to increase the thickness of the foil in order to require greater strength in order to push the medicament through the foil retaining sheet. However, one needs to be careful to avoid producing a blister pack from which elderly or infirm might find it impossible to gain access to their medicament.

Accordingly, there is a need to provide a blister pack that provides resistance to tampering by children but allows the elderly or infirm to release their medicament without undue difficulty. WO 02/32666 describes one approach in which a first sheet material is attached to the foil of a conventional blister pack by a temporary adhesive. The first sheet covers all of the individual medicament recesses, but is itself of smaller overall dimensions than the blister pack itself. Overlaying the first sheet is a second sheet material. This is provided with a permanent adhesive and is larger than the first sheet material such that where it overlies the first sheet, it is adhered thereto by the permanent adhesive, but where it does not overlie the

first sheet, it adheres by the permanent adhesive to the foil retaining sheet of the blister pack. The second sheet is perforated or scored in the area around where it overlies each medicament recess. The user peels off a portion of the second sheet adjacent the location of a medicament. The perforations ensure selective removal only of that part adjacent the chosen medicament and the use of a permanent adhesive provides that a respective portion of the first sheet material is also removed. The user can then press the medicament through the foil layer as usual.

However, the arrangement of WO 02/32666 requires careful cutting and assembly of the components. The present invention seeks to provide an alternative blister pack arrangement.

In its broadest sense, in one aspect the present invention provides a medicament blister pack comprising a medicament tray having an upper surface to which is bonded a medicament retaining sheet. The medicament retaining sheet comprises a laminate comprising bonded first and second sheet materials.

In a second aspect, the present invention provides a medicament retaining sheet for a medicament blister pack, the retaining sheet comprising a laminate comprising bonded first and second sheet materials.

In a third aspect, the present invention provides the use of a laminate comprising bonded first and second sheets as a medicament retaining sheet in a blister pack.

In a fourth aspect, the present invention provides a first sheet material adapted for application to a medicament blister pack comprising a medicament tray having an upper surface to which is bonded a second sheet material.

Preferably, the first sheet material is a paper material.

Preferably, the second sheet material is a metal foil or a metalised plastics sheet.

Suitably, the second sheet material is bonded to the medicament containing sheet.

- 5 Preferably, the medicament tray comprises a moulded plastics tray having a plurality of individual medicament receiving cavities. Suitably, the tray is formed by vacuum moulding.

10 Suitably, the first sheet material includes lines of weakness defining medicament release zones.

15 Typically, the lines of weakness defining medicament release zones comprise perforations and/or slits. Suitably, the lines of weakness are formed by kiss-cutting.

20 Preferably, if the first sheet material is not provided with lines of weakness, the first sheet material is a paper material having a weight or grammage of 30-120g/m². The grammage can be higher if lines of weakness are provided.

25 Suitably, the first sheet material is bonded to the second sheet material by means of an adhesive, preferably a permanent adhesive.

30 Advantageously, no adhesive is provided, or the adhesive is inactivated, between the first and second sheet materials in the medicament release zones.

35 The above and other aspects of the present invention will now be illustrated in further detail, by way of example only, with reference to accompanying Figure 1 which is a schematic sectional view of an embodiment of a blister pack in accordance with the present invention;

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Referring to the figure, there is shown a blister pack 10 comprising a moulded plastics tray 11 including a plurality of moulded cavities or recesses 12 each containing a medicament in the form of a capsule or tablet 13. The tablets are held in place by means of a medicament retaining sheet 14. Retaining sheet 14 is adhered to tray 11 by means of an adhesive 15.

Medicament retaining sheet 14 is a laminate comprising bonded first 20 and second 21 sheet materials. Suitably, the first sheet material 20 is a paper material. Suitably, the second sheet material 21 is a sheet material of the type conventionally used in the production of blister packs. For example, the second sheet material 21 may be a thin metallic foil or a metalised plastics sheet material.

The medicament retaining sheet 14 is adhered to the tray 11 by adhesive 15 contacting second sheet material 21. The adhesive 15 may be applied to the retaining sheet 14 or directly to the tray 11, for example by roller-coating.

The medicament retaining sheet 14 may be applied to the tray 11 during the manufacturing process. Alternatively, the first sheet material may be applied as a label to a pre-formed blister pack, for example, by an end user. The label may include an adhesive surface for application to the foil of the blister pack. This forms another aspect of the present invention.

Figure 2 exemplifies a preferred formation of lines of weakness defining medicament release zones, of particular advantage in the embodiment described above, where there is an absence of adhesive in said zones. In this preferred embodiment, medicament release zones 22 are defined by lines of weakness comprising a cut or slit 23 at one end of each zone 22 with perforations 24 for completing the lines of weakness. With such an arrangement, it is easy for a user to rupture the medicament retaining sheet 14 at the end having slit 23 by pushing

the tablet 13 at that end. The remainder of the first sheet material of the medicament release zone may then be peeled back.



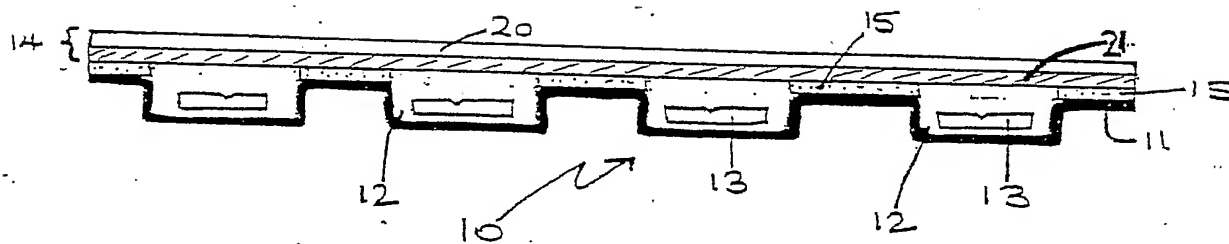


Fig 1

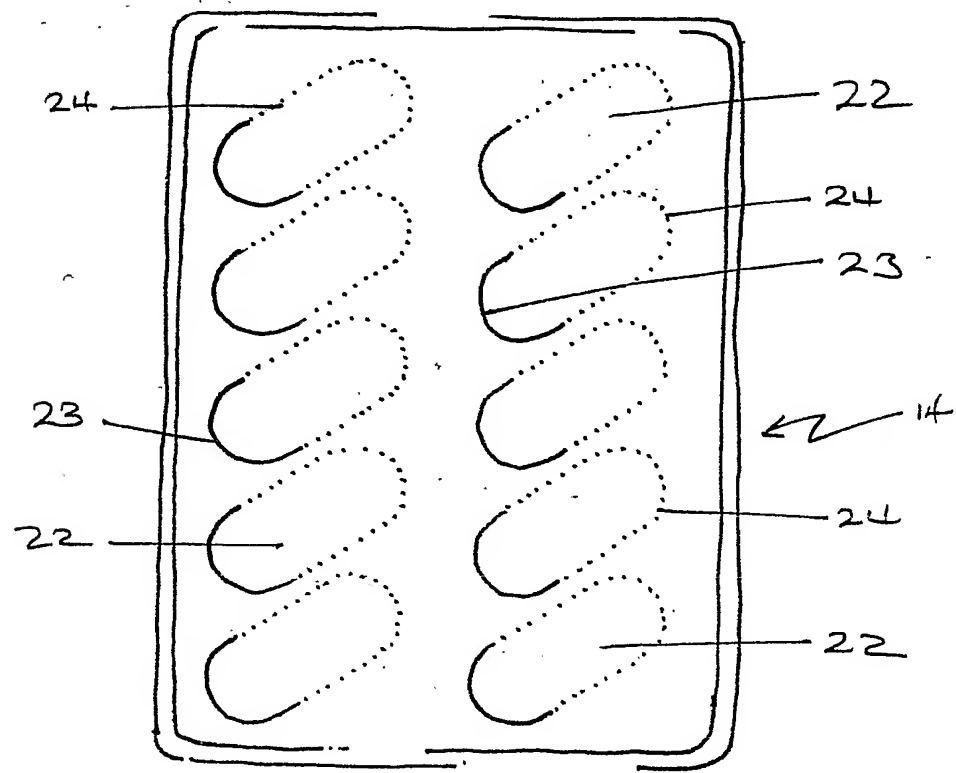


Fig 2





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